1. (Amended) A method of forming a semiconductor-on-insulator structure, comprising the steps of:

a) forming a structure having porous semiconductor material at a first surface thereof;

b)sealing said surface; [introducing an oxidizing species into said porous semiconductor material; and,

either before or after step b),]

c) forming an epitaxial semiconductor layer on said porous semiconductor material after said sealing;[introducing]

d) implanting an oxidizing species through said epitaxial layer into said porous semiconductor material;[,] and

e) reacting said oxidizing species with said porous semiconductor material to form a buried dielectric layer beneath said epitaxial layer.

Amend claim 4 as follows:

4. (Amended) A method of forming a semiconductor-on-insulator structure, comprising the steps of:

a) anodizing a silicon wafer to form porous silicon;

b) sealing said surface; [introducing oxygen into said porous silicon; and, either before or after step b),]

c) forming a semiconductor layer on said porous silicon after said sealing;[, and]

d) implanting an oxidizing species through said epitaxial layer into said porous semiconductor material; and

e) reacting said oxygen with said porous semiconductor material to form a buried oxide layer.

Amend claim 6 as follows:

6. (Amended) A method of forming a semiconductor-on-insulator structure, comprising the steps of:

a) partially anodizing a silicon wafer to form porous silicon; and thereafter

b) sealing said surface;

c) forming an epitaxial semiconductor layer on said porous silicon; [and thereafter;]

d) implanting [introducing] oxygen into said porous silicon through said epitaxial semiconductor layer;[,] and

e) reacting said oxygen with said porous silicon to form a buried oxide layer.

Add the following claims:

12. The method of claim 1 wherein said step of sealing includes heating said porous semiconductor material in a hydrogen ambient.

13. The method of claim 4 wherein said step of sealing includes heating said porous semiconductor material in a hydrogen ambient.

14. The method of claim 6 wherein said step of sealing includes heating said porous semiconductor material in a hydrogen ambient.